



SOLAR POOL PUMP INSTALLATION AND OPERATING INSTRUCTIONS



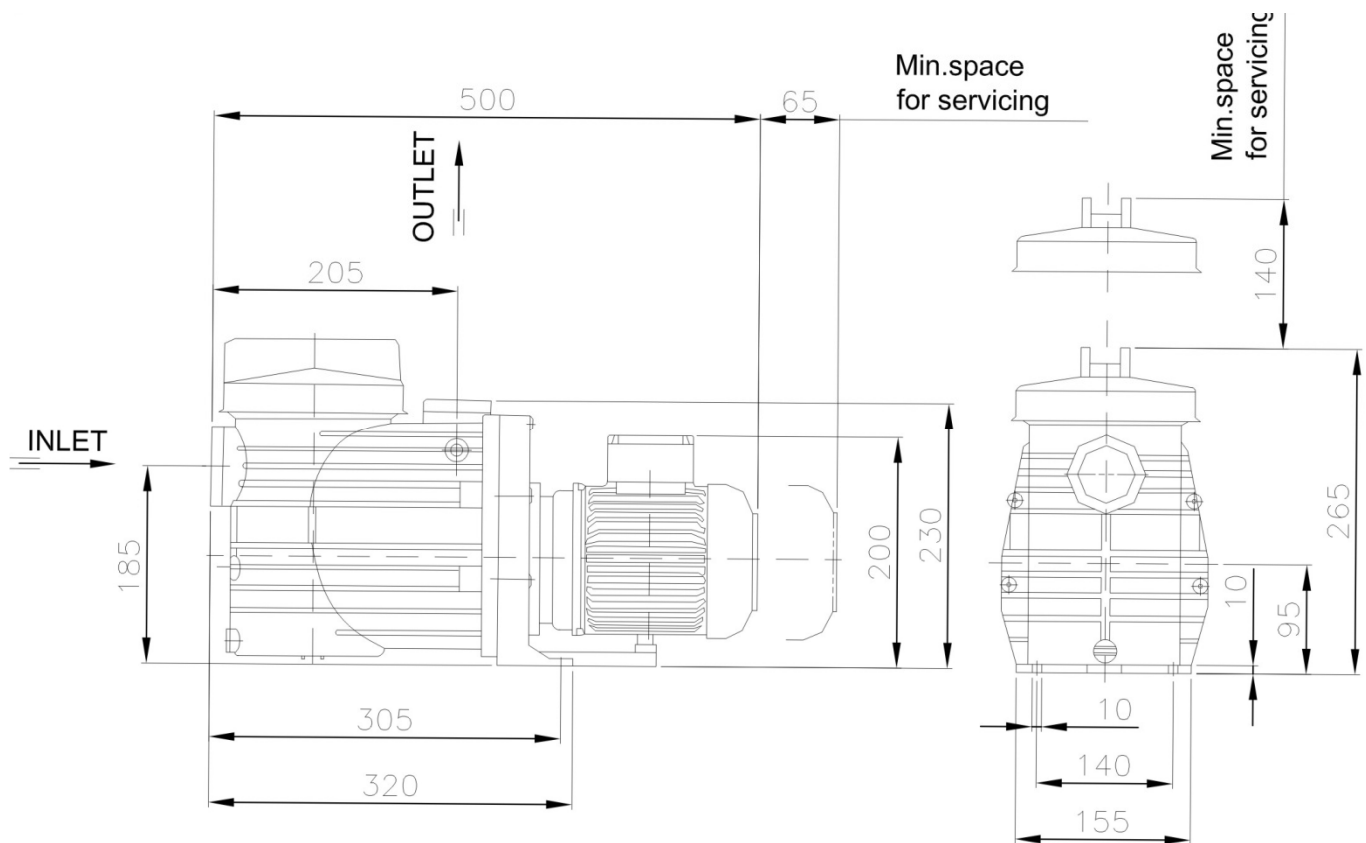
The solar panels, controller and pump wiring should be installed by a suitably qualified electrician.

Introduction

The Blue Pool Solar Pool Pump consists of a brushless DC (Direct Current) motor that is nearly twice as efficient as an AC (Alternating Current) motor, which means the job of filtering with DC power can be achieved with a much smaller motor. A brushless DC motor will generally outlast its AC equivalents life by up to 2 to 3 times.

During the summer swimming season, your pool requires more pumping, and naturally, with more hours of sunlight, your solar pool pump will put in the work needed to keep your pool sparkling. The system is so efficient that it will continue to run even on partially cloudy days.

Dimensions

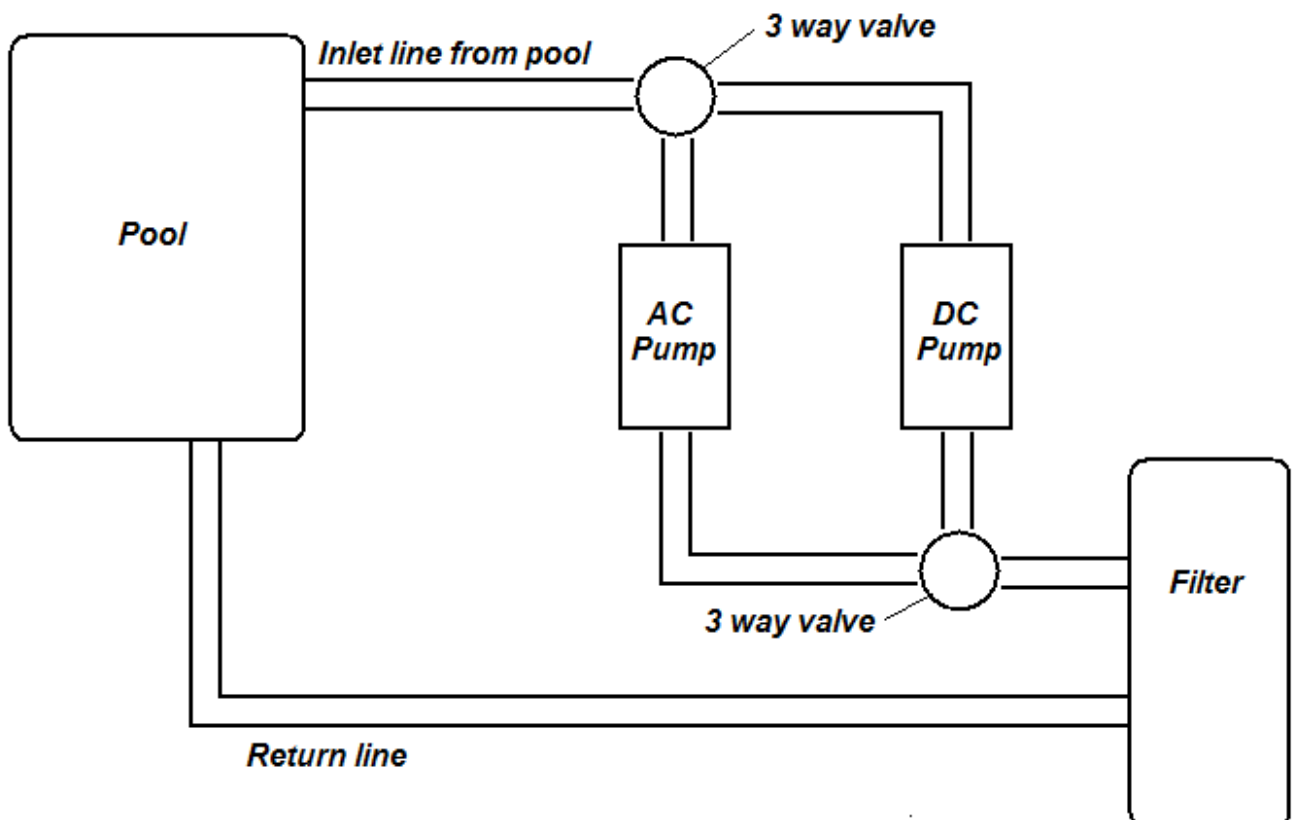


Installation

We recommend that our DC pump is installed alongside your current AC pump so that if you decide to backwash or vacuum your pool in the late evening when the sun is low/down you can simply change the valves from the DC pump back to your existing AC pump.

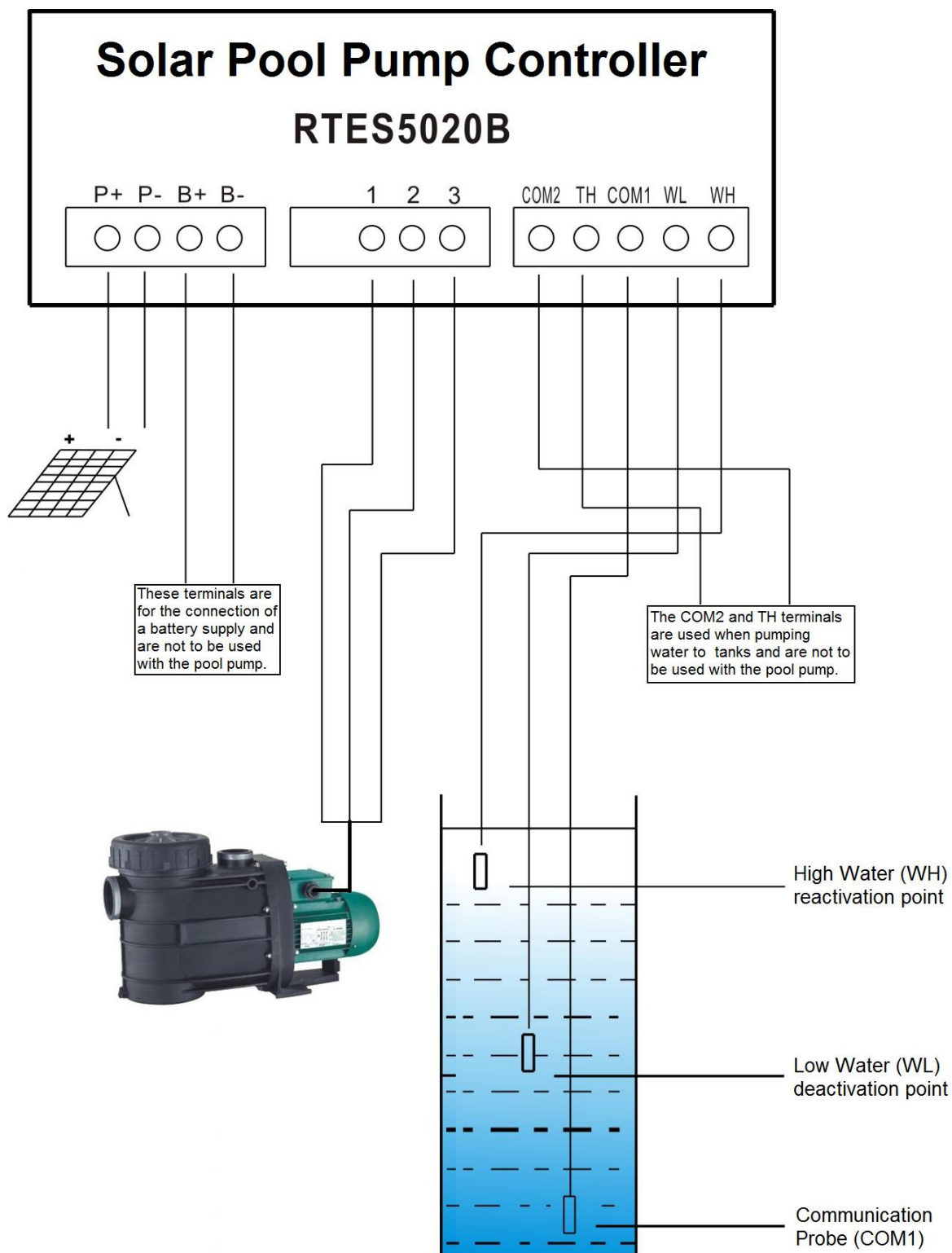
- 1) Locate the pump on solid level ground and make sure it is protected from the weather and pool splash. Water should not come in contact with the motor. Ensure there is sufficient space from other objects to allow cooling airflow from the fan.
- 2) If the pump is located below the water level then isolation valves will need to be installed.
- 3) For gluing pipes ensure correct pressure pipe priming fluid and solvent cement is used as per the manufacturers' instructions.

Basic Installation Diagram

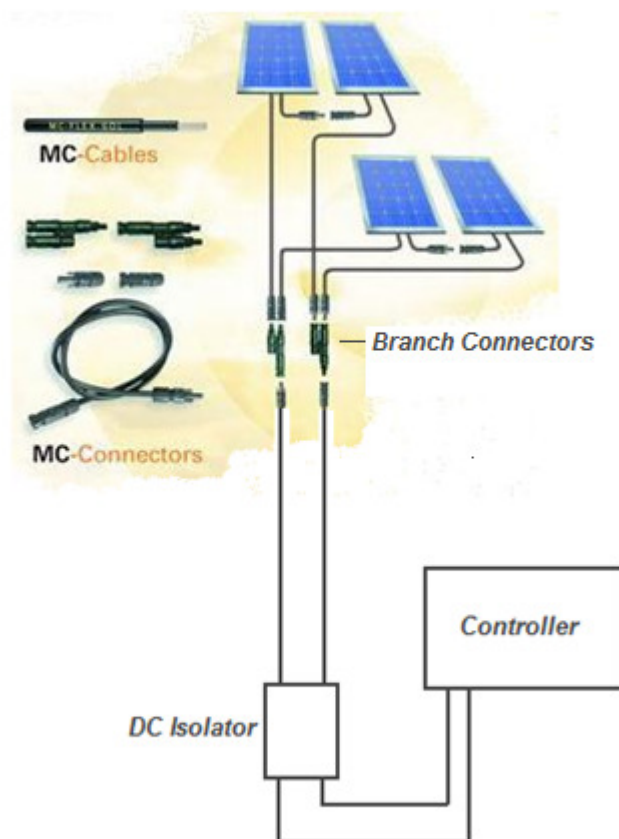


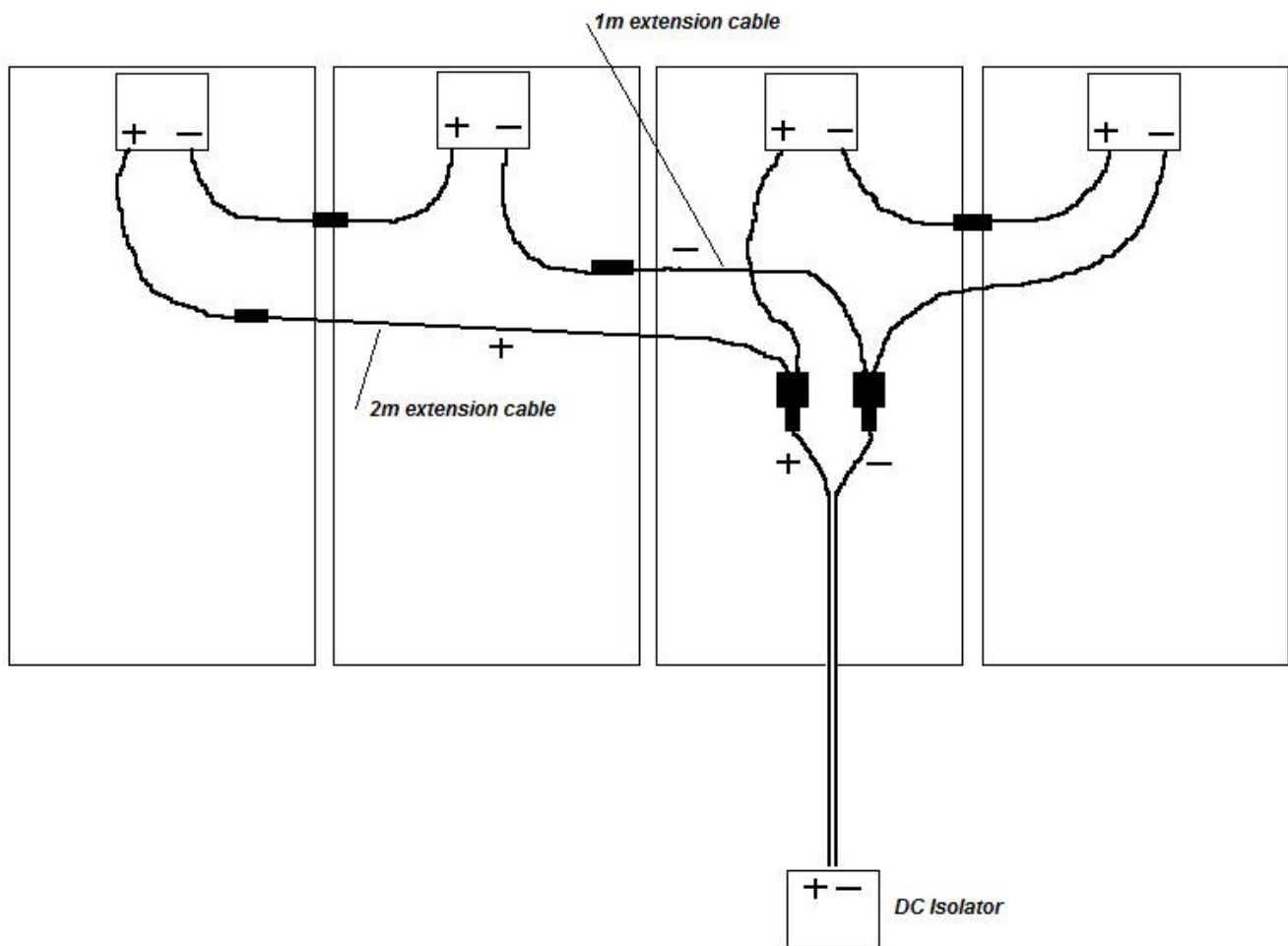
Wiring Instructions

Please ensure the wiring is installed by a suitably qualified electrician.



- 1) Solar panels should be installed as per the solar panel mounting instructions.
- 2) Important - Connection of the panels to the DC Isolator should be the final step.
- 3) The Controller Box should be attached securely and within 100mm from the pump. It should be housed in a weatherproof enclosure with a transparent front as per Australian electrical requirements.
- 4) Connect the 3 wires from the solar pool pump labeled 1, 2 and 3 into the corresponding ports within the Controller. Ensure they are attached well.
- 5) The pump comes with water sensors that can be used to prevent the pump from operating when there is insufficient water in the pool. It is optional to install these and they are not required for the normal setup of the solar pool pump. Special plumbing is required from your pool to house the sensors. Please contact us for further information if you wish to install these.
- 6) Connect the wire labeled "Isolator Cable" from P+ and P- to the corresponding terminals within the DC Isolator.
- 7) Connect the solar panels in serial and then in parallel as per the following diagrams.





- 8) Ensure the switch located at the top right hand corner within the controller box is in the "Solar" position and the DC Isolator is OFF.
- 9) Connect all wiring from the solar panels to the DC isolator making sure the final connection is the two branch connectors into the wire running to the DC Isolator.
- 10) Fill the hair and lint pot with water to prime the pump before operating for the first time.
- 11) Switch the DC Isolator ON, and if there is sufficient sunlight, the pump should start operating.

Controller Display

There are 7 LED display lights across the top of the controller as follows:

1. **Power Light.** Green light indicates the controller is receiving sufficient power from the solar panels
2. **Pump Light.** Green light that turns on 20 seconds after the controller receives power and indicates that the pump is running.
3. **MPPT Light.** Green light indicating that the MPPT (Maximum Power Point Tracking) is functioning to achieve maximum possible power from the solar panels.
4. **Current Error.** Red light that displays if over current is detected. If this light is displayed then turn off the DC Isolator and call us.
5. **Low Power.** Yellow light displays when insufficient voltage is present.
6. **Tank Full.** This light can be ignored as it is not part of the standard pool installation.
7. **Pool Low.** If you have set up the water sensors, then this light is Red when the pool level is too low. The pump will not operate until the water level has reached the reactivation sensor.

Controller Input Voltage

nominal voltage 48VDC

open circuit voltage max 100VDC

Warranty

Your Blue Pool Solar Pump and Controller is covered against defects in materials and workmanship from the date of purchase for a period of 3 years. Please see our terms and conditions for returning goods under warranty.

Available from:
Direct Pool Supplies
www.DirectPoolSupplies.com.au
Ph: 1800 648 363